

## **REMARKS/ARGUMENTS**

### **1.) Claim Amendments**

The Applicants have amended claims 1, 8, 10, 12, 17, 19, and 21. Claims 3-7, 9, 11, 14-16, 18, and 20 have been canceled. Accordingly, claims 1, 2, 8, 10, 12, 13, 17, 19, and 21 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

### **2.) Claim Rejections – 35 U.S.C. § 101**

On Page 2 of the Office Action, the Examiner rejected claim 21 under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. The Applicants have amended claim 21 as suggested by the Examiner. Therefore, the withdrawal of the § 101 rejection is respectfully requested.

### **3.) Claim Rejections – 35 U.S.C. § 103(a)**

On Page 3 of the Office Action, the Examiner rejected claims 1 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Misra et al. (US 2002/0009127 A1) in view of Fulvio (WO 01/50658 A1). The Applicants have amended the claims to better distinguish the claimed invention from Misra and Fulvio. The Examiner's consideration of the amended claims is respectfully requested.

Amended claim 1 now more clearly and distinctly claims the subject matter of the present invention. The claimed code generator is distinguishable from Misra and Fulvio because it only performs simple logic operations and eliminates the need to store intermediate results of complex calculations, thereby reducing implementation complexity. Additionally, the index conversion unit includes a shift register and a permutation unit as well as selection means for selecting, depending upon a mode signal indicating a desired type of orthogonal code, the output of the permutation unit or the output of the shift register for generating the modified index (j). This feature,

together with the newly recited details of the logic unit, does not appear to be taught or suggested by Misra and Fulvio.

Basis for the amendments to claim 1 is found in the specification on page 8, lines 10-21; and in now canceled dependent claims 3-7 and 9, the limitations of which have been incorporated into amended claim 1. Therefore, the allowance of amended claim 1 is respectfully requested.

Claims 2 and 8 depend from amended claim 1 and recite further limitations in combination with the novel elements of claim 1. Therefore, the allowance of claims 2 and 8 is respectfully requested.

Independent method claim 12 has been amended similarly to claim 1, except that the permuting step is retained in dependent claim 17. Amended claim 12 still seems to be patentable over Misra and Fulvio because the combination of the multiplying step with the shift register operation and the details of the logic operations do not appear to be taught or suggested by Misra and Fulvio. Therefore, the allowance of amended claim 12 is respectfully requested.

On Page 6 of the Office Action, the Examiner rejected claims 2 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Misra et al. (US 2002/0009127 A1) in view of Fulvio (WO 01/50658 A1) as applied to claims 1 and 12 above, and further in view of Kim et al. (USP 6,512,753 B1). The Applicants contend that the amendments to base claims 1 and 12 render this rejection moot since the addition of Kim does not overcome the shortcomings of Misra and Fulvio with respect to amended claims 1 and 12. Claims 2 and 13 depend from amended claims 1 and 12, respectively, and recite further limitations in combination with the novel elements of claims 1 and 12. Therefore, the allowance of claims 2 and 13 is respectfully requested.

On Page 7 of the Office Action, the Examiner rejected claims 7 and 9 and 18-19 under 35 U.S.C. § 103(a) as being unpatentable over Misra et al. (US 2002/0009127 A1) in view of Fulvio (WO 01/50658 A1) as applied to claims 1 and 12 above, and further in view of Eo et al. (US 6,069,574). Claims 7, 9, and 18 have been canceled. Regarding claim 19, the Applicants contend that the amendments to base claim 12

render this rejection moot since the addition of Eo does not overcome the shortcomings of Misra and Fulvio with respect to amended claim 12. Claim 19 depends from amended claim 12 and recites further limitations in combination with the novel elements of claim 12. Therefore, the allowance of claim 19 is respectfully requested.

On Page 10 of the Office Action, the Examiner rejected claims 5-6 and 15-16 under 35 U.S.C. § 103(a) as being unpatentable over Misra et al. (US 2002/0009127 A1) in view of Fulvio (WO 01/50658 A1) as applied to claims 1-12 above, and further in view of Kim et al. (USP 6,671,251 B1). The Applicants have canceled claims 5-6 and 15-16.

On Page 13 of the Office Action, the Examiner rejected claim 21 under 35 U.S.C. § 103(a) as being unpatentable over Misra et al. (US 2002/0009127 A1) in view of Fulvio (WO 01/50658 A1) and further in view of Schooler et al. (US 2005/0053049 A1). The Applicants have amended independent claim 21 similarly to claim 12, which is allowable over Misra and Fulvio for the reasons discussed above. Schooler does not overcome the shortcomings of Misra and Fulvio with respect to amended claim 12 or 21. Therefore, the allowance of amended claim 21 is respectfully requested.

On Page 15 of the Office Action, the Examiner rejected claims 3-4 and 14-15 under 35 U.S.C. § 103(a) as being unpatentable over Misra et al. (US 2002/0009127 A1) in view of Fulvio (WO 01/50658 A1) as applied to claim 1 and 12 above, further in view of Piccinonno (WO 01/50659 A1) and further in view of Jechoux et al. (US 2002/0041636 A1). The Applicants have canceled claims 3-4 and 14-15.

On Page 18 of the Office Action, the Examiner rejected claims 10-11 under 35 U.S.C. § 103(a) as being unpatentable over Misra et al. (US 2002/0009127 A1) in view of Fulvio (WO 01/50658 A1) and further in view of Fulvio (WO 01/50658 A1) and further in view of Rabaeijs et al. (US 6,967,992 B1). Claim 11 has been canceled. The Applicants have amended claim 10 similarly to claim 1. Amended claim 10 now more clearly and distinctly claims the subject matter of the present invention. The claimed

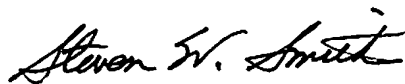
parallel code generator is distinguishable from Misra and Fulvio because it only performs simple logic operations and eliminates the need to store intermediate results of complex calculations, thereby reducing implementation complexity. Additionally, the index conversion unit includes a shift register and a permutation unit as well as selection means for selecting, depending upon a mode signal indicating a desired type of orthogonal code, the output of the permutation unit or the output of the shift register, for generating the modified index (j). This feature, together with the newly recited details of the logic unit, does not appear to be taught or suggested by Misra and Fulvio. Therefore, the allowance of amended claim 10 is respectfully requested.

#### 4.) Conclusion

In view of the foregoing remarks, the Applicants believe all of the claims currently pending in the Application to be in condition for allowance. The Applicants, therefore, respectfully request that the Examiner withdraw all rejections and issue a Notice of Allowance for claims 1, 2, 8, 10, 12, 13, 17, 19, and 21.

The Applicants request a telephonic interview if the Examiner has any questions or requires any additional information that would expedite the prosecution of the Application.

Respectfully submitted,



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